



[4910-13-P]

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2017-0516; Product Identifier 2016-NM-125-AD; Amendment 39-19000; AD 2017-17-10]**

**RIN 2120-AA64**

**Airworthiness Directives; ATR – GIE Avions de Transport Régional Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are superseding Airworthiness Directive (AD) 2015-23-12, which applied to all ATR – GIE Avions de Transport Régional Model ATR42 and ATR72 airplanes. AD 2015-23-12 required identifying the serial number and part number of the main landing gear (MLG) rear hinge pins, and replacing pins or the MLG if necessary. This AD retains the requirements of AD 2015-23-12, requires replacing certain additional MLG hinge pins, and reduces certain compliance times. This AD was prompted by a new occurrence of a cracked MLG rear hinge pin. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain other publications listed in this AD as of December 29, 2015 (80 FR 73096, November 24, 2015).

**ADDRESSES:** For service information identified in this final rule, contact ATR – GIE Avions de Transport Régional, 1, Allée Pierre Nadot, 31712 Blagnac Cedex, France; telephone +33 (0) 5 62 21 62 21; fax +33 (0) 5 62 21 67 18; email [continued.airworthiness@atr.fr](mailto:continued.airworthiness@atr.fr); Internet <http://www.aerochain.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0516.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0516; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation,

Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Shahram Daneshmandi, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1112; fax 425-227-1149.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2015-23-12, Amendment 39-18329 (80 FR 73096, November 24, 2015) (“AD 2015-23-12”). AD 2015-23-12 applied to all ATR – GIE Avions de Transport Régional Model ATR42 and ATR72 airplanes. The NPRM published in the Federal Register on May 31, 2017 (82 FR 24906). The NPRM was prompted by a new occurrence of a cracked MLG rear hinge pin. The NPRM proposed to continue to require identifying the serial number and part number of the MLG rear hinge pins, and replacing pins or the MLG if necessary. The NPRM also proposed to require replacing certain additional MLG hinge pins, and reducing certain compliance times. We are issuing this AD to detect and correct cracked rear hinge pins, which could lead to MLG structural failure, possibly resulting in collapse of the MLG and consequent injury to the occupants of the airplane.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2016-0135, dated July 8, 2016 (referred to after this as the Mandatory Continuing

Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all ATR – GIE Avions de Transport Régional Model ATR42 and ATR72 airplanes. The

MCAI states:

Prompted by cases of rupture of main landing gear (MLG) rear hinge pin part number (P/N) D61000 encountered in service in 1994 and 1996, DGAC [Direction Générale de l’Aviation Civile] France issued AD 96-131-064 (B) for ATR42 aeroplanes and AD 96-096-029 (B) for ATR72 aeroplanes to require inspection and, depending on findings, corrective action. Since those [French] ADs were issued, new occurrences of cracked rear hinge pin P/N [part number] D61000 were reported on ATR72 MLG. The result of subsequent investigation revealed that the affected pins were subjected to a non-detected thermal abuse done in production during grinding process. Analysis also showed that other MLG pin P/N’s could be affected by the same production issue.

This condition, if not detected and corrected, could lead to structural failure and consequent collapse of the MLG, possibly resulting in damage to the aeroplane and injury to the occupants.

To address this potential unsafe condition, EASA issued AD 2014-0074 [which corresponds to FAA AD 2015-23-12] to require inspection and, depending on findings, replacement of affected pins.

After EASA AD 2014-0074 was issued, a new occurrence was reported of a cracked MLG hinge pin P/N D62055 installed on the MLG Side Brace of an ATR42 aeroplane. This new occurrence was also identified as related to a non-detected thermal abuse done in production during grinding process.

Prompted by this new occurrence, Messier Bugatti Dowty (MBD) updated the list of MLG hinge pins affected by this unsafe condition by adding serial numbers (S/N), which were previously not considered by EASA AD 2014-0074. In addition, it was determined that the compliance time for replacement of pins with P/N D62055 must be reduced.

The six affected MBD Service Bulletins (SB) were revised accordingly, and six new ones were also published to address this issue.

For the reasons described above, this [EASA] AD retains the requirements of EASA AD 2014-0074, which is superseded, but addresses an expanded MLG hinge pin population with appropriate compliance time(s).

You may examine the MCAI in the AD docket on the Internet at

<http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0516.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

### **Conclusion**

We reviewed the available data and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

### **Related Service Information under 1 CFR part 51**

Messier-Bugatti-Dowty has issued the following service information, which describes procedures for inspecting and replacing the MLG hinge pin. These documents

are distinct since they apply to different airplane models and different MLG hinge pin part numbers.

- Service Bulletin 631-32-213, Revision 2, dated March 15, 2016.
- Service Bulletin 631-32-214, Revision 1, dated March 15, 2016.
- Service Bulletin 631-32-215, Revision 1, dated March 15, 2016.
- Service Bulletin 631-32-216, Revision 3, dated March 15, 2016.
- Service Bulletin 631-32-219, Revision 1, dated March 15, 2016.
- Service Bulletin 631-32-220, Revision 1, dated March 15, 2016.
- Service Bulletin 631-32-224, dated March 15, 2016.
- Service Bulletin 631-32-231, dated March 15, 2016.
- Service Bulletin 631-32-232, Revision 1, dated March 15, 2016.
- Service Bulletin 631-32-233, dated March 15, 2016.
- Service Bulletin 631-32-234, dated March 15, 2016.
- Service Bulletin 631-32-235, dated March 15, 2016.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Costs of Compliance**

We estimate that this AD will affect 63 airplanes of U.S. registry.

The actions required by AD 2015-23-12, and retained in this AD take about 8 work-hours per product, at an average labor rate of \$85 per work-hour. Required parts

will cost about \$16,000 per product. Based on these figures, the estimated cost of the actions that are required by AD 2015-23-12 is \$16,680 per product.

We also estimate that it will take about 8 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts will cost about \$16,000 per product. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$1,050,840, or \$16,680 per product.

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

#### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.



## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2015-23-12, Amendment 39-18329 (80 FR 73096, November 24, 2015), and adding the following new AD:

**2017-17-10 ATR – GIE Avions de Transport Régional:** Amendment 39-19000; Docket No. FAA-2017-0516; Product Identifier 2016-NM-125-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD replaces AD 2015-23-12, Amendment 39-18329 (80 FR 73096, November 24, 2015) (“AD 2015-23-12”).

#### **(c) Applicability**

This AD applies to ATR – GIE Avions de Transport Régional Model ATR42-200, -300, -320, and -500 airplanes; and ATR72-101, -201, -102, -202, -211,

-212, and -212A airplanes; certificated in any category; all certified models; all manufacturer serial numbers.

**(d) Subject**

Air Transport Association (ATA) of America Code 32, Landing Gear.

**(e) Reason**

This AD was prompted by a new occurrence of a cracked main landing gear (MLG) rear hinge pin. We are issuing this AD to detect and correct cracked rear hinge pins, which could lead to MLG structural failure, possibly resulting in collapse of the MLG and consequent injury to the occupants of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Retained Hinge Pin Identification and Replacement for Model ATR72 Airplanes, with Terminating Action**

This paragraph restates the requirements of paragraph (g) of AD 2015-23-12, with terminating action. For Model ATR72 airplanes: Within 12 months after December 29, 2015 (the effective date of AD 2015-23-12), inspect for the serial number of the left-hand (LH) and right-hand (RH) MLG rear hinge pins having part number (P/N) D61000. A review of airplane maintenance records is acceptable in lieu of this identification if the part number and serial number of the LH and RH MLG rear hinge pins can be conclusively determined from that review. If a rear hinge pin having P/N D61000 has a serial number listed in Messier-Bugatti-Dowty Service Bulletin 631-32-213, dated December 16, 2013; or Messier-Bugatti-Dowty Service Bulletin 631-32-216, Revision 1, dated December 17, 2013; as applicable: Within 12 months after December 29, 2015,

replace the pin with a serviceable part as identified in paragraph (h) of this AD, in accordance with the Accomplishment Instructions of Messier-Bugatti-Dowty Service Bulletin 631-32-213, dated December 16, 2013; or Messier-Bugatti-Dowty Service Bulletin 631-32-216, Revision 1, dated December 17, 2013; as applicable.

Accomplishment of the actions required by paragraph (l) of this AD terminates the inspection required by this paragraph. Accomplishing the actions required by paragraph (m) or (o) of this AD terminates the actions required by this paragraph.

**(h) Retained Definition of Serviceable Hinge Pin for Model ATR72 Airplanes for Paragraph (g) of this AD, with No Changes**

This paragraph restates the definition in paragraph (h) of AD 2015-23-12, with no changes. For Model ATR72 airplanes: For purposes of paragraph (g) of this AD, a serviceable MLG rear hinge pin is a pin that is specified in paragraph (h)(1) or (h)(2) of this AD.

(1) A hinge pin that is not identified in Messier-Bugatti-Dowty Service Bulletin 631-32-213, dated December 16, 2013; or Messier-Bugatti-Dowty Service Bulletin 631-32-216, Revision 1, dated December 17, 2013; as applicable.

(2) A hinge pin that has been inspected and reconditioned, in accordance with the Accomplishment Instructions of Messier-Bugatti-Dowty Service Bulletin 631-32-213, dated December 16, 2013; or Messier-Bugatti-Dowty Service Bulletin 631-32-216, Revision 1, dated December 17, 2013; as applicable.

**(i) Retained MLG Pin Identification and Replacement for Model ATR72 Airplanes, with Terminating Action**

This paragraph restates the requirements of paragraph (i) of AD 2015-23-12, with terminating action. For Model ATR72 airplanes: At the earlier of the times specified in paragraphs (i)(1) and (i)(2) of this AD, inspect all LH and RH MLG pins for a part

number and serial number listed in Messier-Bugatti-Dowty Service Bulletin 631-32-214, dated January 13, 2014; or Messier-Bugatti-Dowty Service Bulletin 631-32-219, dated March 3, 2014; as applicable. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number and serial number of the LH and RH MLG pin can be conclusively determined from that review. If any affected MLG pin is found: At the earlier of the compliance times specified in paragraphs (i)(1) and (i)(2) of this AD, replace the MLG with a serviceable MLG as identified in paragraph (j) of this AD, using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or ATR – GIE Avions de Transport Régional's EASA Design Organization Approval (DOA). Accomplishment of the actions required by paragraph (l) of this AD terminates the inspection for the part number and serial number of the LH and RH MLG rear hinge pins required by this paragraph. Accomplishment of the actions required by paragraph (m) or (o) of this AD terminates the actions required by this paragraph.

(1) No later than the next MLG overhaul scheduled after December 29, 2015 (the effective date of AD 2015-23-12).

(2) Within 20,000 flight cycles or 9 years, whichever occurs first, accumulated since installation of the MLG on an airplane since new or since last overhaul, as applicable.

**(j) Retained Definition of Serviceable MLG for Model ATR72 Airplanes for Paragraph (i) of this AD, with No Changes**

This paragraph restates the definition in paragraph (j) of AD 2015-23-12, with no changes. For Model ATR72 airplanes: For purposes of paragraph (i) of this AD, a serviceable MLG is one that incorporates pins specified in paragraph (j)(1) or (j)(2) of this AD.

(1) Pins that are not identified in Messier-Bugatti-Dowty Service Bulletin 631-32-214, dated January 13, 2014; or Messier-Bugatti-Dowty Service Bulletin 631-32-219, dated March 3, 2014; as applicable.

(2) Pins that have been inspected and reconditioned in accordance with the Accomplishment Instructions of Messier-Bugatti-Dowty Service Bulletin 631-32-214, dated January 13, 2014; or Messier-Bugatti-Dowty Service Bulletin 631-32-219, dated March 3, 2014; as applicable.

**(k) Retained MLG Pin Identification and Replacement for Model ATR42 Airplanes, with Terminating Action**

This paragraph restates the requirements of paragraph (k) of AD 2015-23-12, with terminating action. Accomplishment of the actions required by paragraph (l) of this AD terminates the actions required by paragraph (k)(1) of this AD. Accomplishment of the actions required by paragraph (m) or (o) of this AD terminates the actions required by paragraph (k)(2) of this AD.

(1) For Model ATR42 airplanes: Within the compliance time identified in paragraph (k)(1)(i) or (k)(1)(ii) of this AD, whichever occurs first, inspect for any LH and RH MLG pins having a part number and serial number listed in Messier-Bugatti-Dowty Service Bulletin 631-32-215, dated January 13, 2014; or Messier-Bugatti-Dowty Service Bulletin 631-32-220, dated March 3, 2014; as applicable. A review of airplane maintenance records is acceptable in lieu of this identification if the part number and serial number of the LH and RH MLG pin can be conclusively determined from that review.

(i) No later than the next MLG overhaul scheduled after December 29, 2015 (the effective date of AD 2015-23-12).

(ii) Within 20,000 flight cycles or 9 years, whichever occurs first, accumulated since installation of the MLG on an airplane since new or since last overhaul, as applicable.

(2) If the MLG pin having a part number and serial number listed in Messier-Bugatti-Dowty Service Bulletin 631-32-215, dated January 13, 2014; or Messier-Bugatti-Dowty Service Bulletin 631-32-220, dated March 3, 2014; as applicable; is found to be installed during the identification required by paragraph (k)(1) of this AD, within the compliance time identified in paragraph (k)(1) of this AD, replace the MLG with a serviceable MLG, using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the EASA; or ATR – GIE Avions de Transport Régional's EASA DOA. For the purposes of this paragraph, a serviceable MLG is a part that has pins identified in paragraph (k)(2)(i) or (k)(2)(ii) of this AD.

(i) Pins that are not listed in Messier-Bugatti-Dowty Service Bulletin 631-32-215, dated January 13, 2014; or Messier-Bugatti-Dowty Service Bulletin 631-32-220, dated March 3, 2014; as applicable.

(ii) Pins that have been inspected and reconditioned, in accordance with the Accomplishment Instructions of Messier-Bugatti-Dowty Service Bulletin 631-32-215, dated January 13, 2014; or Messier-Bugatti-Dowty Service Bulletin 631-32-220, dated March 3, 2014; as applicable.

**(l) New Requirement of this AD: Hinge Pin Identification**

Within the applicable compliance time specified in, and in accordance with the Accomplishment Instructions of, the applicable Messier-Bugatti-Dowty Service Bulletin specified in figure 1 to paragraphs (l) through (p) of this AD, or figure 2 to paragraphs (l) through (p) of this AD, as applicable to the airplane model and MLG hinge part number,

identify the serial number (S/N) of the LH and RH MLG hinge pins. A review of airplane maintenance records is acceptable in lieu of this identification if the part number and serial number of the LH and RH MLG hinge pins can be conclusively determined from that review. Accomplishment of the actions required by this paragraph terminates the inspections required by paragraphs (g), (i), and (k)(1) of this AD.

**Figure 1 to Paragraphs (l) through (p) of this AD – Model ATR72 Airplanes**

<b>MLG Hinge Part Numbers</b>	<b>Applicable Messier-Bugatti-Dowty Service Bulletins</b>	<b>Compliance Time</b>
D60955 D60968 D60999 D61032 D61061	Messier-Bugatti-Dowty Service Bulletin 631-32-214, Revision 1, dated March 15, 2016,  Messier-Bugatti-Dowty Service Bulletin 631-32-219, Revision 1, dated March 15, 2016, or  Messier-Bugatti-Dowty Service Bulletin 631-32-233, dated March 15, 2016.	<b>A or B</b> , whichever occurs first: <b>A:</b> Not later than the next scheduled MLG overhaul after the effective date of this AD  <b>B:</b> Within 20,000 flight cycles or 9 years, whichever occurs first, accumulated since first installation of a MLG on an airplane since new, or since last overhaul, as applicable
D61000	Messier-Bugatti-Dowty Service Bulletin 631-32-213, Revision 2, dated March 15, 2016,  Messier-Bugatti-Dowty Service Bulletin 631-32-216, Revision 3, dated March 15, 2016, or  Messier-Bugatti-Dowty Service Bulletin 631-32-232, Revision 1, dated March 15, 2016.	Within 12 months after the effective date of this AD

**Figure 2 to Paragraphs (l) through (p) of this AD – Model ATR42 Airplanes**

<b>MLG Hinge Part Numbers</b>	<b>Airplane Model(s)</b>	<b>Applicable Messier-Bugatti-Dowty Service Bulletins</b>	<b>Compliance Time</b>
D62054 D63823 D63825	All	Messier-Bugatti-Dowty Service Bulletin 631-32-215, Revision 1, dated March 15, 2016,  Messier-Bugatti-Dowty Service Bulletin 631-32-220, Revision 1, dated March 15, 2016, or  Messier-Bugatti-Dowty Service Bulletin 631-32-235, dated March 15, 2016.	<b>A or B</b> , whichever occurs first:  <b>A:</b> Not later than the next scheduled MLG overhaul after the effective date of this AD  <b>B:</b> Within 20,000 flight cycles or 9 years, whichever occurs first, accumulated since first installation of a MLG on an airplane since new, or since last overhaul, as applicable
D56800 D56800-1 D56809 D56841 D57261 D57401 D57407 D58807 D62079	ATR42-300	Messier-Bugatti-Dowty Service Bulletin 631-32-215, Revision 1, dated March 15, 2016,  Messier-Bugatti-Dowty Service Bulletin 631-32-220, Revision 1, dated March 15, 2016, or  Messier-Bugatti-Dowty Service Bulletin 631-32-235, dated March 15, 2016.	<b>A or B</b> , whichever occurs first:  <b>A:</b> Not later than the next scheduled MLG overhaul after the effective date of this AD  <b>B:</b> Within 20,000 flight cycles or 9 years, whichever occurs first, accumulated since first installation of a MLG on an airplane since new, or since last overhaul, as applicable
D62055	All	Messier-Bugatti-Dowty Service Bulletin 631-32-224, dated March 15, 2016,  Messier-Bugatti-Dowty Service Bulletin 631-32-231, dated March 15, 2016, or  Messier-Bugatti-Dowty Service Bulletin 631-32-234, dated March 15, 2016.	Within 24 months after the effective date of this AD



**(m) New MLG Hinge Pin Replacement**

If, during the identification required by paragraph (l) of this AD, an MLG hinge pin with a serial number listed in the applicable Messier-Bugatti-Dowty Service Bulletin is found to be installed: Within the compliance time specified in figure 1 to paragraphs (l) through (p) of this AD, or figure 2 to paragraphs (l) through (p) of this AD, as applicable to airplane model and MLG hinge pin part number, replace each affected MLG hinge pin with a serviceable MLG hinge pin. The replacement must be done in accordance with the Accomplishment Instructions of the applicable Messier-Bugatti-Dowty Service Bulletin specified in figure 1 to paragraphs (l) through (p) of this AD, or figure 2 to paragraphs (l) through (p) of this AD, as applicable to the airplane model and MLG hinge part number, except as required by paragraph (o) of this AD. Accomplishment of the actions required by this paragraph terminates the actions required by paragraphs (g) and (i) of this AD. Accomplishment of the actions required by this paragraph terminates the replacement required by paragraph (k)(2) of this AD.

**(n) New Definition of Serviceable Hinge Pins for Paragraph (m) of this AD**

For the purpose of paragraph (m) of this AD, a serviceable MLG hinge pin is a pin that is specified in paragraph (n)(1) or (n)(2) of this AD.

(1) A hinge pin that does not belong to the identified batch as listed in the applicable Messier-Bugatti-Dowty Service Bulletin specified in figure 1 to paragraphs (l) through (p) of this AD, or figure 2 to paragraphs (l) through (p) of this AD, as applicable to the airplane model and MLG hinge part number.

(2) A hinge pin that can be identified, through the MLG maintenance records, as having been inspected and reconditioned in accordance with the Accomplishment Instructions of the applicable Messier-Bugatti-Dowty Service Bulletin specified in figure 1 to paragraphs (l) through (p) of this AD, or figure 2 to paragraphs (l) through (p) of this AD, as applicable to the airplane model and MLG hinge part number.

**(o) New MLG Hinge Pin Replacement Procedures**

If, during accomplishment of the MLG hinge pin replacement required by paragraph (m) of this AD, the applicable Messier-Bugatti-Dowty Service Bulletin specified in figure 1 to paragraphs (l) through (p) of this AD, or figure 2 to paragraphs (l) through (p) of this AD, does not specify the MLG hinge pin replacement procedure, do the MLG hinge pin replacement using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the EASA; or ATR – GIE Avions de Transport Régional's EASA DOA. Do the MLG hinge pin replacement at the applicable compliance time specified in paragraph (m) of this AD. Accomplishment of the actions required by this paragraph terminates the hinge pin replacement required by paragraphs (g), (i), and (k)(2) of this AD.

**(p) New Parts Installation Limitation**

As of the effective date of this AD, no person may install on any airplane an MLG hinge pin having a part number identified in figure 1 to paragraphs (l) through (p) of this AD, or figure 2 to paragraphs (l) through (p) of this AD, and having a serial number defined in the applicable Messier-Bugatti-Dowty Service Bulletin specified in figure 1 to paragraphs (l) through (p) of this AD, or figure 2 to paragraphs (l) through (p) of this AD, as applicable to the airplane model and MLG hinge part number, unless the part can be conclusively identified, through the MLG maintenance records, as having been inspected

and reconditioned in accordance with the Accomplishment Instructions of the applicable Messier-Bugatti-Dowty Service Bulletin.

**(q) Credit for Previous Actions**

(1) This paragraph restates the credit provided in paragraph (l) of AD 2015-23-12, with no changes. This paragraph provides credit for the actions required by paragraph (g) of this AD, if those actions were performed before December 29, 2015 (the effective date of AD 2105-23-12), using Messier-Bugatti-Dowty Service Bulletin 631-32-216, dated October 30, 2013, which is not incorporated by reference in this AD.

(2) This paragraph provides credit for the actions required by paragraphs (l) and (m) of this AD, if those actions were done before the effective date of this AD using the applicable service information specified in paragraph (q)(2)(i) through (q)(2)(x) of this AD.

(i) Messier-Bugatti-Dowty Service Bulletin 631-32-213, December 16, 2013, which was incorporated by reference on December 29, 2015 (80 FR 73096, November 24, 2015).

(ii) Messier-Bugatti-Dowty Service Bulletin 631-32-213, Revision 1, dated December 8, 2014, which is not incorporated by reference in this AD.

(iii) Messier-Bugatti-Dowty Service Bulletin 631-32-214, dated January 13, 2014, which was incorporated by reference on December 29, 2015 (80 FR 73096, November 24, 2015).

(iv) Messier-Bugatti-Dowty Service Bulletin 631-32-215, dated January 13, 2014, which was incorporated by reference on December 29, 2015 (80 FR 73096, November 24, 2015).

(v) Messier-Bugatti-Dowty Service Bulletin 631-32-216, dated October 30, 2013, which is not incorporated by reference in this AD.

(vi) Messier-Bugatti-Dowty Service Bulletin 631-32-216, Revision 1, dated December 17, 201, which was incorporated by reference on December 29, 2015 (80 FR 73096, November 24, 2015).

(vii) Messier-Bugatti-Dowty Service Bulletin 631-32-216, Revision 2, dated December 8, 2014, which is not incorporated by reference in this AD.

(viii) Messier-Bugatti-Dowty Service Bulletin 631-32-219, dated March 3, 2014, which was incorporated by reference on December 29, 2015 (80 FR 73096, November 24, 2015).

(ix) Messier-Bugatti-Dowty Service Bulletin 631-32-220, dated March 3, 2014, which was incorporated by reference on December 29, 2015 (80 FR 73096, November 24, 2015).

(x) Messier-Bugatti-Dowty Service Bulletin 631-32-232, dated December 8, 2014, which is not incorporated by reference in this AD.

**(r) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, International Section, Transport Standards Branch, FAA, has the authority to approve AMOCs for this

AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Branch, send it to the attention of the person identified in paragraph (s)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov.

(i) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(ii) AMOCs approved previously for AD 2015-23-12 are approved as AMOCs for the corresponding provisions of this AD.

**(2) Contacting the Manufacturer:** As of the effective date of this AD, for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the EASA; or ATR – GIE Avions de Transport Régional’s EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

**(s) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2016-0135, dated July 8, 2016, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0516.

(2) For more information about this AD, contact Shahram Daneshmandi, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1112; fax 425-227-1149.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (t)(5) and (t)(6) of this AD.

**(t) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(3) The following service information was approved for IBR on [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(i) Messier-Bugatti-Dowty Service Bulletin 631-32-213, Revision 2, dated March 15, 2016.

(ii) Messier-Bugatti-Dowty Service Bulletin 631-32-214, Revision 1, dated March 15, 2016.

(iii) Messier-Bugatti-Dowty Service Bulletin 631-32-215, Revision 1, dated March 15, 2016.

(iv) Messier-Bugatti-Dowty Service Bulletin 631-32-216, Revision 3, dated March 15, 2016.

(v) Messier-Bugatti-Dowty Service Bulletin 631-32-219, Revision 1, dated March 15, 2016.

(vi) Messier-Bugatti-Dowty Service Bulletin 631-32-220, Revision 1, dated March 15, 2016.

(vii) Messier-Bugatti-Dowty Service Bulletin 631-32-224, dated March 15, 2016.

(viii) Messier-Bugatti-Dowty Service Bulletin 631-32-231, dated March 15, 2016.

(ix) Messier-Bugatti-Dowty Service Bulletin 631-32-232, Revision 1, dated March 15, 2016.

(x) Messier-Bugatti-Dowty Service Bulletin 631-32-233, dated March 15, 2016.

(xi) Messier-Bugatti-Dowty Service Bulletin 631-32-234, dated March 15, 2016.

(xii) Messier-Bugatti-Dowty Service Bulletin 631-32-235, dated March 15, 2016.

(4) The following service information was approved for IBR on December 29, 2015 (80 FR 73096, November 24, 2015).

(i) Messier-Bugatti-Dowty Service Bulletin 631-32-213, dated December 16, 2013.

(ii) Messier-Bugatti-Dowty Service Bulletin 631-32-214, dated January 13, 2014.

(iii) Messier-Bugatti-Dowty Service Bulletin 631-32-215, dated January 13, 2014.

(iv) Messier-Bugatti-Dowty Service Bulletin 631-32-216, Revision 1, dated December 17, 2013. Pages 4, 5, and 8 of this service bulletin are the original issue and are dated October 30, 2013.

(v) Messier-Bugatti-Dowty Service Bulletin 631-32-219, dated March 3, 2014.

(vi) Messier-Bugatti-Dowty Service Bulletin 631–32–220, dated March 3, 2014.

(5) For service information identified in this AD, contact ATR – GIE Avions de Transport Régional, 1, Allée Pierre Nadot, 31712 Blagnac Cedex, France; telephone +33 (0) 5 62 21 62 21; fax +33 (0) 5 62 21 67 18; email [continued.airworthiness@atr.fr](mailto:continued.airworthiness@atr.fr); Internet <http://www.aerochain.com>.

(6) You may view this service information at the FAA, Transport Standards Branch, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(7) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on August 8, 2017.

Dionne Palermo,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

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